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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/603,721

Filing Date: June 24, 2003

Appellant(s): IMAI ET AL.

Peter Manus  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 11/24/08 appealing from the Office action mailed 3/3/08.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

20020048035	BEAUDET et. al	4-2002
5845078	TEZUKA et. al	12-1998
JP01315066	SATO	7-1991

Art Unit: 2179

20020050996 Hirayama 5-2002

6385412 SADAKUNI 5-2002

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-4, 6, 9, 12-14, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudet et al, (hereinafter Beaudet), US 2002/0048035 in view of Tezuka et al (hereinafter Tezuka) US Patent 5845078.

- In regards to claims 1, 16 and 17, Beaudet teaches a user interfacing display apparatus for use in an electronic apparatus including (i) detail setting

key for detecting what a user selects, and for performing detail setting of a job as to what a user selects (page 4 and 5 paragraph [0041]), and (ii) control means, capable of performing a plurality of jobs respectively in accordance with desired detail settings, for suspending a job that is being processed or a job that is standing by and performing another job, in accordance with an interruption instruction (page 1 paragraph [0008]), the user interfacing display apparatus comprising: an interruption key for detecting the interruption instruction, and transmitting the interruption instruction to the control means, the interruption key being capable of changing a display state thereof; a display section for displaying the desired detail settings (Figures 4D and 4E, page 4 and 5 paragraphs [0041] and [0042]); and display control means for (iii) popping up, when the details setting key that is associated with one of the detail settings of one of the plurality of jobs is selected, a detail item of that one of the detail settings on the display section and (iv) changing the display state of the interruption key, as a result of said selecting of said detail setting. However, Beaudet does not specifically teach changing the display state of the key, while keeping the key displayed on the display section.

Tezuka teaches a network integrated construction system, method of installing network connection machines, and method of setting network parameters. Tezuka further teaches changing the display state of the key, while keeping the key displayed on the display section (column 64 line 53-column 65 line 25). It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the method and apparatus of Beaudet to include the teachings of Tezuka in order to change display states of keys. One would have been motivated to make such a combination in order to set parameters of the buttons/keys of the device to allow the user to distinguish between operation states when the key is on display (column 64 line 53-column 65 line 25). .

- In regards to claim 2, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches on performing the popping-up on the display section, the display control means transmits to the control means an instruction to invalidate the interruption instruction detected via the interruption key (Figures 4H to 4J, page 5 paragraph [0043]).
- In regards to claim 3, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches on ending the popping-up after the detail setting is completed, the display control means transmits to the control means an instruction to validate the interruption instruction detected via the interruption key (page 4 paragraph [0041] and [0042]).
- In regards to claim 4, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches the interruption key is a soft key that is displayed on the display section (page 4 paragraph [0041]).
- In regards to claim 6, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches on performing the popping-up on the display section, the display control means hides at least part of the interruption key by performing the popping-up (Figures 4H to 4J, page 5 paragraph [0043]).

- In regards to claim 9, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches on performing the popping-up on the display section, the display control means changes the display state of the interruption key to an unavailability display state informing that interruption is unavailable (page 4 paragraph [0041] and [0042]).
- In regards to claim 12, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches on ending the popping-up after the detail setting is completed, the display control means changes back the display state of the interruption key to a display state displayed before the popping-up is performed (page 4 paragraph [0041] and [0042]).
- In regards to claim 13, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches warning means for warning the user, so that the display control means warns the user by using the warning means when detecting that the interruption key is selected while the popping-up is being performed on the display section (page 4 paragraph [0040]).
- In regards to claim 14, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches the warning is performed by using a warning message (page 4 paragraph [0040]).
- In regards to claim 18, Beaudet teaches the limitations above (see claims 1, 16, and 17 *supra*). Beaudet further teaches being a digital photocopying machine (abstract).

2. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudet and Tezuka, further in view of Sato et al (hereinafter Sato) JP 03175065.

- In regards to claim 7, Beaudet and Tezuka teach the limitations above (see claims 1, 16, and 17 *supra*). However Beaudet and Tezuka do not specifically teach the interruption key is a hard key provided in the display section.

Sato teaches a method to easily interrupt/restart a receiving operation. Sato further teaches the interruption key is a hard key provided in the display section (abstract: constitution). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and apparatus of Beaudet and Tezuka to include the teachings of Sato in order to provide a hard interrupt key. One would have been motivated to make such a combination in order to provide a hard key to indicate when an interrupt key is available by flashing (abstract: constitution).

- In regards to claim 8, Beaudet and Tezuka teach the limitations above (see claims 1, 16, and 17 *supra*). However Beaudet and Tezuka do not specifically teach on performing the popping-up on the display section, the display control means switches over a lamp indicating whether the interruption key is available or unavailable.

Sato teaches a method to easily interrupt/restart a receiving operation. Sato further teaches on performing the popping-up on the display section, the display control means switches over a lamp indicating whether the interruption key is

available or unavailable (abstract: constitution). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and apparatus of Beaudet and Tezuka to include the teachings of Sato in order to provide a hard interrupt key. One would have been motivated to make such a combination in order to provide a hard key to indicate when an interrupt key is available by flashing (abstract: constitution).

3. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudet and Tezuka, further in view of Hirayama, US 20020050996.

- In regards to claim 10, Beaudet and Tezuka teach the limitations above (see claims 1, 16, and 17 *supra*). However Beaudet does not specifically teach wherein the changing of the display state of the interruption key to the unavailability display state is performed by lighting a color thickness of the interruption key from a predetermined color thickness in which the interruption key has been displayed.

Hirayama teaches an information processing apparatus. Hirayama further teaches wherein, the changing of the display state of the interruption key to the unavailability display state is performed by lighting a color thickness of the interruption key from a predetermined color thickness in which the interruption key has been displayed (page 3 paragraph [0039]). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus and method of Beaudet and Tezuka to include the teachings of Hirayama in order to change the display state of the interruption key. One would

have been motivated to make such a combination in order to better alert the user of the enablement or disablement of the interrupt key.

- In regards to claim 11, Beaudet and Tezuka teach the limitations above (see claims 1, 16, and 17 *supra*). However Beaudet and Tezuka do not specifically teach wherein the changing of the display state of the interruption key to the unavailability display state is performed by using a dotted line.

Hirayama teaches an information processing apparatus. Hirayama further teaches the changing of the display state of the interruption key to the unavailability display state is performed by using a dotted line (page 3 paragraph [0039]). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus and method of Beaudet and Tezuka to include the teachings of Hirayama in order to change the display state of the interruption key. One would have been motivated to make such a combination in order to better alert the user of the enablement or disablement of the interrupt key.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudet and Tezuka, further in view of Sadakuni US Patent 6385412.

- In regards to claim 15, Beaudet and Tezuka teach the limitations above (see claims 1, 16, and 17 *supra*). However Beaudet does not specifically teach wherein the warning is performed by using a warning sound. Sadakuni teaches an image forming apparatus. Sadakuni further teaches wherein the warning is performed by using a warning sound (column 8 lines 19-

25). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus and method of Beaudet and Tezuka to include the teachings of Sadakuni in order to warn the user or via an auditory warning. One would have been motivated to make such a combination in order warn the user of an interruption function via an auditory warning.

#### **(10) Response to Argument**

**Applicant asserts the following:**

*Beaudet has no detail settings in a pop-up display together with an interrupt key, so the problem of confusion as to what job is being run is not present. Nor does Beaudet teach a display where an interrupt button is displayed together with pop-up detail settings so that an operator may be confused as to whether the pop-up details relate to a job being run, or a stand-by job.*

**Examiner disagrees.**

Applicant does not specifically claim in the claim language, “*detail settings in a pop-up display together with an interrupt key.*” Instead applicant claims, “a display section for displaying the desired detail settings; and display control means for (iii) popping up, when the detail setting key that is associated with one of the detail settings of one of the plurality of jobs is selected, a detail item of that one of the detail settings on the display section, and (iv) changing the display state of the interruption key, as a result of said selecting of said detail setting key, while keeping the interruption key displayed on the display section.” The applicant claims a display section for displaying a pop-up details setting while the interruption key displayed on the display section. No

where does it say that the interrupt key is together with the pop-up display in the claim language. .” If the applicant wishes to claim such, please put this directly in the claim language in order to save time for both the examiner and the attorney.

Furthermore, Beaudet is not relied upon to teach while keeping the interruption key displayed on the display section. Tezuka is relied upon teaching changing the display state of the key, while keeping the key displayed on the display section (column 64 line 53-column 65 line 25). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and apparatus of Beaudet to include the teachings of Tezuka in order to change display states of keys. One would have been motivated to make such a combination in order to set parameters of the buttons/keys of the device to allow the user to distinguish between operation states when the key is on display (column 64 line 53-column 65 line 25).

**Applicant asserts the following:**

*The interrupt key of Beaudet also does not change state in response to election of a detail setting key for one of plural jobs.*

*Tezuka displays with an interrupt button, as noted above with respect to Figs. 25 and 29, is not on a display of detail settings of one of plural jobs on an electronic apparatus that runs plural jobs with selectable detail settings that display on pop-ups, e.g. a copier.*

**Examiner disagrees.**

*Beaudet does teach the interrupt key changing state in response to election of a detail setting key. Beaudet teaches in Figures 4D to 4E that the interrupt key changes*

state (i.e. disappears) when "set up copy job" is pressed. Setting up a copy job is an election of a detail setting key which is one of a plurality of jobs (i.e. a number of printing or copying jobs in queue).

**Applicant asserts the following:**

*Tezuka has nothing to do with running multiple jobs on an electronic apparatus such as an image forming apparatus. Second, and importantly, the art of record does not provide a teaching, motivation or suggestion, to combine Beaudet and Tezuka. Beaudet eliminates the interrupt key entirely. Without the hindsight benefit of the present invention, one would not change Beaudet to use a change of display state of the interrupt key.*

**Examiner disagrees.**

Beaudet teaches an electro photographic reproduction apparatus with scanning means, raster image processing means, buffer means for storing, and control means. Tezuka teaches a network integrated construction system, method of installing network connection machines, and method of setting network parameters, wherein the network is connected to a printer/copier and has similar interrupt properties as to Beaudet where it runs multiple jobs over the network (i.e. printing and copying among other things). Tezuka further teaches changing the display state of the key, while keeping the key displayed on the display section (column 64 line 53-column 65 line 25). This way, in combination with Beaudet the user could tell easily if the interrupt state is in a selected state for an interrupt job, or the current job is processing whereby the interrupt button is

available for selection OR, in a waiting state (column 64 line 53-column 65 line 25). In Beaudet if the user had an interrupt key kept on the display these various states could easily be clearly shown to the user for direct information during or after a copy or print job. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and apparatus of Beaudet to include the teachings of Tezuka in order to change display states of keys. One would have been motivated to make such a combination in order to set parameters of the buttons/keys of the device to allow the user to distinguish between operation states when the key is on display (column 64 line 53-column 65 line 25).

**Applicant asserts the following:**

*Third, Tezuka does not teach or suggest a change of state of an interrupt key that changes its display state in connection with the selection of a detail setting key, and certainly not in connection with the activation of an interrupt key which initiates a pop-up of detail settings for a different copy job to be run under control from the same GUI as a previous copy job.*

**Examiner disagrees.**

First Applicant does not claim, "an interrupt key that changes its display state with the activation of an interrupt key which initiates a pop-up of detail settings for a different copy job to be run under control from the same GUI as a previous copy job." This is not the claim language presented directly in the independent claims 1, 16 and

17. The claim language actually states, “changing the display state of the interruption key, as a result of said selecting of said detail setting.” And as explained before in the previous arguments, *Beaudet does teach* the interrupt key changing state in response to election of a detail setting key. Beaudet teaches in Figures 4D to 4E that the interrupt key changes state (i.e. disappears) when “set up copy job” is pressed.

**Applicant asserts the following:**

*That Beaudet is not a pop-up of a detail setting that overlies another display (see Fig. 1 and detail pop-up 67 overlying the operation panel display on the LCD 52).*

**Examiner disagrees.**

Beaudet teaches a pop-up detail setting in Figures 4D and 4E wherein when set copy job is selected the settings are popped up on display in the next page. Nowhere in the claim language does the applicant specify “overlying the operation panel display.” If the applicant wishes to claim such limitations then the applicant should put them in the claim language directly. Otherwise the action of “popping up” can be left to the broadest interpretation as possible.

**Applicant asserts the following:**

*Claim 2 specifies that once there is a popping up of the detail settings on the display, the display control means transmits an instruction to the control means of the electronic apparatus to invalidate the interruption instruction detected via the interruption key. In other words, not only is the interrupt key displayed in the changed state, but it becomes inoperative, although still displayed. The Examiner cites paragraph*

*[0043] of Beaudet and Figs. 4H-4J. However, this paragraph discusses a time of day (e.g., outside normal working hours) controlled lock-out of selection of a copy mode of operation. Screen 4K is associated with this mode of lock-out. No interrupt key is displayed.*

**Examiner disagrees.**

Beaudet does teach the interrupt key changing state in response to election of a detail setting key and is invalidated. Beaudet teaches in Figures 4D to 4E that the interrupt key changes state (i.e. disappears) when "set up copy job" is pressed therefore making it "invalidated."

**Applicant asserts the following:**

*Claim 3, dependent on claim 2, defines the reverse of the claim 2 operation, namely, that when the pop-up detail setting is complete, the interruption key is again made operational through the transmission of an instruction from the display control means to the control means for the electronic apparatus. The Examiner cites Beaudet, paragraphs [0041] and [0042] as teaching this feature. Applicants again note that the Beaudet screens 4C-4J referenced in these paragraphs are sequential screens, not pop-up detail settings. Further, while there is a mention of the "Interrupt Print Job" key shown in Figs. 4C and 4D, the function of claim 3 is not present. The closest appears to be the discussion in paragraph [0042] where pressing the "Interrupt Print Job" key on screen 4D is stated as causing a display of screen 4J, which, upon completion "of the current set," reverts to screen 4J, which has no display of the "Interrupt Print Job" key.*

**Examiner disagrees.**

Examiner cites that figure 4H in Beaudet show that once the end of a setting up a job (i.e. copy job) is completed and in progress, the interrupt key is “validated” by being on the screen and selectable again for another interrupt job. Therefore meeting the claimed limitations of claim 3.

**Applicant asserts the following:**

*Sato describes a data buffer drive with an interrupt "button" 7 and a "lighting reception display lamp 13" that flashes when data reception is interrupted. The state of the button 7 itself does not change. Indeed it is not even clear that the Sato "button" 7 is a hard key. Further, while the Examiner states that there is a change in the Sato lamp in response to a popping up of detail setting, Applicants do not find this feature in the cited "Abstract; Constitution" of Sato. There is no change of state of an interruption key as a result of a selection of a detail setting key, or any other key. Nor is there any teaching or suggestion that the interrupt button of Sato can or should be used in the manner of Applicants' hard interrupt key and lamp in combination with the features of claim 1.*

**Examiner disagrees.**

Sato teaches on performing the popping-up on the display section, the display control means switches over a lamp indicating whether the interruption key is available or unavailable (abstract: constitution). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and apparatus of Beaudet and Tezuka to include the teachings of Sato in order

to provide a hard interrupt key. One would have been motivated to make such a combination in order to provide a hard key to indicate when an interrupt key is available by flashing (abstract: constitution).

Examiner quotes from Sato (abstract: constitution), “when a reception interrupt button is pressed, a lighting reception lamp 13 is flashed to inform the user of that the reception is interrupted.” Therefore, Sato meets the claim limitations.

**Applicant asserts the following:**

*Applicants therefore urge that the Hiroyama '996 reference does not teach the specific claimed subject matter, nor any reason to use the change of display state of any key with Beaudet and Tezuka in the manner of claim 10, dependent from claim 1, or claim 11, dependent from claim 1. Hirayama '996 is relevant at all only through the hindsight of the present invention.*

**Examiner disagrees.**

Hirayama is of relevant art because it is a processing apparatus similar to that of Beaudet and Tezuka in that all these apparatuses and processes deal with printing/copying/scanning and the relevant GUI buttons/display to control those processes. Therefore, it does have relevance in the art and would be reasonable to combine with the forgoing references in the given rejection.

**Applicant asserts the following:**

*Applicants agree that a warning sound or visual indication per se is known.*

*However, this feature 1 ) does not address the shortcoming of the prior art noted above with respect to claim 1 from which claim 15 depends indirectly. Nor does Sadakuni give any indication that an advance warning of an event about to be executed can or should be used with the detail setting, display, interrupt key and change of state interrupt key features of claims 1 and 13.*

**Examiner disagrees.**

Sadakuni teaches an image forming apparatus which is relevant in the art. Sadakuni further teaches wherein the warning is performed by using a warning sound (column 8 lines 19-25, "(e.g. a beep sound)"). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus and method of Beaudet and Tezuka to include the teachings of Sadakuni in order to warn the user or via an auditory warning. One would have been motivated to make such a combination in order warn the user of an interruption function via an auditory warning. Therefore, Sadakuni teaches the claim limitations of 15.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Shashi K Becker/

Examiner, Art Unit 2179

Conferees:

Ba Huynh

/Ba Huynh/

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